

ABSTRACT

Hydrogels containing catalase co-immobilized with an analyte-sensitive enzyme such as glucose oxidase are disclosed. The hydrogels may be pH-sensitive, and preferably are thin and lightly crosslinked. The catalase is present in concentrations ranging generally from 100 units/ml to about 1000 units/ml. These hydrogels have much faster swelling response times as compared to hydrogels without catalase, and are useful in biosensors and analyte-responsive drug delivery devices. The hydrogels also have an increased useful life, due to protection of the immobilized analyte-sensitive enzyme from degradation by hydrogen peroxide.